

Exemption 6



Abbreviated Preliminary Assessment Report

CW Processing Company

CERCLIS ID No. IAN000706171

By: Brian Mitchell, EPA Region 7 Nebraska Site Assessment Manager

October 5, 2010

Brian Mitchell

Site Location

The CW Processing Company site, CERCLIS Site Identification Number IAN000706171, is located at 5051 Williams Boulevard SW, Cedar Rapids, Iowa 52404.

Site Description

Wayne Manufacturing used to conduct plating operations at this facility prior to being occupied by CW Processing Company.

Potential Problem

A Phase 2 Site Investigation was conducted at the site. The Phase 2 Site Investigation Report is dated March 30, 2005. The Phase 2 Site Investigation showed that cyanides had been released to the soil and groundwater at the CW Processing Company site. On July 15, 2010, Cynthia Hutchison, with the EPA Region 7 RCRA Program, asked that the CERCLA Site Assessment Program sample down-gradient private water supply wells to determine if any of the private water supply wells had been impacted.

Abbreviated Preliminary Assessment Sampling Activities

Below is a Google Earth Map which identifies the CW Processing Company site, the 9 private water supply wells which were sampled by EPA during the week of July 19, 2010, and the direction of groundwater flow for the area as identified by the blue arrow. The distance from the CW Processing Company site to private water supply well 7 is approximately $\frac{3}{4}$ of a mile.

Private water supply well 1 belongs to:

[REDACTED]
4551 33rd Avenue SW
Cedar Rapids, Iowa 52404
[REDACTED]

The house has been empty for 2 years and is a rental home.

Private water supply well 2 belongs to:

[REDACTED]
4531 33rd Avenue SW
Cedar Rapids, Iowa 52404
[REDACTED]

The house has a reverse osmosis system installed for drinking purposes.

Private water supply well 3 belongs to:

[REDACTED]
4501 33rd Avenue SW
Cedar Rapids, Iowa 52404
[REDACTED]

Well depth....approx 350 feet.

Well drilled....approx 1963.

The house has a reverse osmosis system installed for drinking purposes.

Private water supply well 4 belongs to:

[REDACTED]

4471 33rd Avenue SW
Cedar Rapids, IA 52404

Well depth: 220ft
Well drilled: 1993
The house has no treatment system
The owners drink bottled water

Private water supply well 5 belongs to:

4401 33rd Ave SW
Cedar Rapids, IA 52404

Private water supply well 6 belongs to:

3980 West Post Road SW
Cedar Rapids, IA 52404

Well depth: 300ft
Well drilled: 1960 (approx.)
The house has reverse osmosis and an
iron filter for drinking purposes.

Private water supply well 7 belongs to:

5257 Beverly Road SW
Cedar Rapids, IA

Well depth: 470ft
The house has no reverse osmosis inside
The house has water softener.

Private water supply well 8 belongs to:

3750 West Post Road SW
Cedar Rapids, IA 52404

Well depth: 318ft
Well drilled: 1962
The house uses water softener.

Private water supply well 9 belongs to:

3800 West Post Road SW
Cedar Rapids, IA 52404

This house has a sandpoint well with a depth
of 100ft
The owner drinks bottled water



Attached are copies of the sample collection field sheets, the analytical results, and the chain-of-custody record.

Conclusions

None of the private water supply wells sampled have been impacted by the release at the CW Processing Company site. No further action under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authority is warranted at this time. Cynthia Hutchison, with the EPA Region 7 RCRA Program, shall retain clean-up lead at this site.

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 1 QC Code: Matrix: Water Tag ID: 4997-1-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside ~~High~~ Spigot prior to RO system
SN

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: Sample Collection: Start: 7/20/10 15:30
Longitude: End: 7/20/10 15:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, In Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

4501 33rd Ave SW
Cedar Rapids, IA 52404-3129

Well depth: 300 to 400
Drilled: 1968

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 2 QC Code: ___ Matrix: Water Tag ID: 4997-2-___

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: ~~Outside Spill~~ ^{After} Reverse Osmosis Inside House
SN

External Sample Number: _____

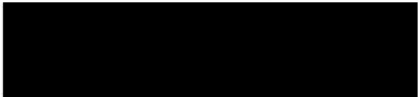
Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 7/20/10 15:30
Longitude: _____ End: 7/20/10 15:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)


4501 33rd Ave SW
Cedar Rapids, IA 52404-3129


Well Depth: 300 to 400

Drilled: 1962

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 3 QC Code: Matrix: Water Tag ID: 4997-3-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside spigot prior to RO system

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: Sample Collection: Start: 7/20/10 16:30
Longitude: End: 7/20/10 16:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

4531 33rd Ave SW

Cedar Rapids, IA 52404-3129

Well Depth: Unknown
Drilled: Unknown

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 4 QC Code: Matrix: Water Tag ID: 4997-4-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: After reverse osmosis (inside home)

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude:

Sample Collection: Start: 7/20/10

16:30

Longitude:

End: 7/20/10

16:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

4531 33rd Ave SW

Cedar Rapids, IA 52404-3129

Well Depth: Unknown

Drilled: Unknown

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 5 QC Code: Matrix: Water Tag ID: 4997-5-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside spigot, prior to treatment

External Sample Number:

Expected Conc: (or Circle One: Low Medium High)

Latitude:

Longitude:

Date: 7/20/10 21 B6m
Sample Collection: Start: 7/20/10 16:30

End: 7/26/10 21 B6m 16:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

rental address (4551 33rd Ave SW)
(Cedar Rapids, IA 52404-3129)

Well Depth: unknown

Drilled: unknown

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 6 QC Code: Matrix: Water Tag ID: 4997-6-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside spigot

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude:

Sample Collection: Start: 7/20/10

18:00

Longitude:

End: 7/20/10

12:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

4471 33rd Ave SW

Cedar Rapids, IA 52404-3129

no treatment system

Well Depth: 220 ft

Drilled: 1993

They drink bottled water

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 7 QC Code: Matrix: Water Tag ID: 4997-7-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside spigot prior to treatment

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: Sample Collection: Start: 7/20/10 19:00
Longitude: End: 7/20/10 19:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

4401 33rd Ave SW
Cedar Rapids, IA 52404-3127

Well Depth: Unknown
Drilled: Unknown

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 8 QC Code: ___ Matrix: Water Tag ID: 4997-8-___

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Outside spigot before treatment

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 7/21/10 8:30

Longitude: _____

End: 7/21/10 8:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

3900 Westport Rd SW
Cedar Rapids, IA 52404

1) Reverse Osmosis
2) Iron Filter

Well depth: 300ft

Drilled: 1960 (#1,2)

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 9 QC Code: Matrix: Water Tag ID: 4997-9-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: out side spigot prior to softener

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start:

7/21/10

9:30

Longitude: _____

End: 7/21/10

9:30

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)

5257 Beverly Rd SW
Cedar Rapids, IA

well ≈ 470' deep

1. no Reverse Osmosis inside
2. Has water softener

Sample Collected By: BM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4997 Sample Number: 10 QC Code: Matrix: Water Tag ID: 4997-10-

Project ID: BMCWDWSA Project Manager: Brian Mitchell
Project Desc: CW Processing DW supply wells - Site Assessment
City: Cedar Rapids State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Inside prior to treatment

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude:

Sample Collection: Start: 7/21/10

10:00

Longitude:

End: 7/21/10

10:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter Cubitainer	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total in Water
1 - 1 Liter Cubitainer	NaOH to pH >12	14 Days	1 Cyanide, Total - Dissolved in Water

Sample Comments:

(N/A)



3750 Westport Rd SW
Cedar Rapids, IA 52404

1) Water Softener



Well Depth: 318 ft
Drilled: A62

Sample Collected By: BM

Sample Collection Field Sheet
U.S. EPA Region 7
Kansas City, Kansas

ASR Number: 4997 Sample Number: 11 QC Code: _____ Matrix: water Tag ID 4997-11
Project Manager: Brian Mitchell
Project ID: BMCW DWSA
Project Description: CW processing DW supply wells - site assessment
City: Cedar Rapids
State: IA
Program: Superfund
CERCLA Site Name: multi-site - General
CERCLA Site ID: -
CERCLA Site Billing ID: 07280800
CERCLA Site OU: -
Location Description: inside tap; no treatment
External Sample Number: _____
Expected Concentration: circle one (low)medium.....high)
Latitude: _____
Longitude: _____
Sample Collection Date/Time: 7/21/10 / 10:30
Laboratory Analyses: _____
Container Type: 1.1 liter cubi; Dis; HNO₃ to pH < 2; 180 days; metal
1.1 liter cubi; HNO₃ to pH < 2; 180 days; dissolved ICP/ms
Preservative: 1.1 liter cubi; NaOH to pH 7-12; 14 days; metals ICP/ms
Holding Time: 1.1 liter cubi; NaOH to pH 7-12; 14 days; Cyanide Diss.
Requested Analysis: _____
Sample Comments: _____

3800 West Post Road SW
Cedar Rapids, IA 52404

sandpoint well; depth ~ 100'; she drinks bottled water

Sample Collected By: Brian Mitchell

**United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101**

Date: AUG 17 2010

Subject: Transmittal of Sample Analysis Results for ASR #: 4997

Project ID: BMCWDWSA

Project Description: CW Processing DW supply wells - Site Assessment

From: Michael F. Davis, Chief 
Chemical Analysis and Response Branch, Environmental Services Division

W8/18/10

To: Brian Mitchell
SUPR/EFLR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

ASR Number: 4997

Summary of Project Information

08/17/20

Project Manager: Brian Mitchell

Org: SUPR/EFLR

Phone: 913-551-7633

Project ID: BMCWDWSA

Project Desc: CW Processing DW supply wells - Site Assessment

Location: Cedar Rapids

State: Iowa

Program: Superfund

Site Name: Multi-Site - General

Site ID: 07ZZ **Site OU:** 00

Purpose: Site Preliminary Assessment

GPRA PRC: 302DD2C

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

Units: Specific units in which results are reported.

___ = Field Sample

mg/L = Milligrams per Liter

ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

Number: 4997

Sample Information Summary

08/17/2010

Project ID: BMCWDWSA

Project Desc: CW Processing DW supply wells - Site Assessment

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	---	Water	Outside spigot prior to RO system		07/20/2010	15:30	07/20/2010	15:30	07/22/2010
2 -	---	Water	After Reverse Osmosis Inside House		07/20/2010	15:30	07/20/2010	15:30	07/22/2010
3 -	---	Water	Outside spigot prior to RO system		07/20/2010	16:30	07/20/2010	16:30	07/22/2010
4 -	---	Water	After Reverse Osmosis Inside House		07/20/2010	16:30	07/20/2010	16:30	07/22/2010
5 -	---	Water	Outside spigot prior to treatment		07/21/2010	16:30	07/21/2010	16:30	07/22/2010
6 -	---	Water	Outside spigot		07/20/2010	18:00	07/20/2010	18:00	07/22/2010
7 -	---	Water	Outside spigot prior to treatment		07/20/2010	19:00	07/20/2010	19:00	07/22/2010
8 -	---	Water	Outside spigot before treatment		07/21/2010	08:30	07/21/2010	08:30	07/22/2010
9 -	---	Water	Outside spigot prior to softener		07/21/2010	09:30	07/21/2010	09:30	07/22/2010
10 -	---	Water	Inside prior to treatment		07/21/2010	10:00	07/21/2010	10:00	07/22/2010
11 -	---	Water	Inside Tap = No treatment		07/21/2010	10:30			07/22/2010

Analysis Comments About Results For This Analysis

1 Cyanide, Total - Dissolved in Water

Lab: Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3135.2J used to determine 'Total Dissolved' results.**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__**Comments:**

(N/A)

1 Cyanide, Total in Water

Lab: Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3135.2J used to determine 'Total' results.**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__**Comments:**

(N/A)

1 Metals - Dissolved, in Water by ICP/MS

Lab: Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3123.1C Applied to Field Filtered Samples for "Dissolved" Results**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__**Comments:**

Slight zinc (8.7) contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11.

1 Metals in Water by ICP/MS

Lab: Region 7 ESAT Contract Lab (In-House)**Method:** EPA Region 7 RLAB Method 3123.1C**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__**Comments:**

(N/A)

Number: 4997

RLAB Approved Sample Analysis Results

08/17/2010

Project ID: BMCWDWSA

Project Desc: CW Processing DW supply wells - Site Assessment

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 Cyanide, Total - Dissolved in Water					
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U
1 Cyanide, Total in Water					
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	3.4	1.0 U	7.6	1.0 U
Barium	ug/L	68.8	5.0 U	51.6	5.0 U
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	3.9	2.0 U	3.7	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	4.9	4.6	2.0 U	9.7
Lead	ug/L	1.0 U	1.0 U	1.6	1.0 U
Manganese	ug/L	22.1	1.0 U	76.2	1.0 U
Nickel	ug/L	3.0	1.0 U	3.4	1.0 U
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	18.4 U	7.7 U	4.4 U	3.2 U
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	3.4	1.0 U	1.7	1.0 U
Barium	ug/L	70.1	5.0 U	53.1	3.7
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	6.5	2.0 U	60.4	6.7
Lead	ug/L	1.0 U	1.0 U	9.9	1.0 U
Manganese	ug/L	23.5	1.0 U	22.6	1.0 U
Nickel	ug/L	2.9	1.0 U	2.9	1.0 U
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	17.9	2.0 U	28.0	7.8

ASR Number: 4997

Project ID: BMCWDWSA

RLAB Approved Sample Analysis Results

08/1

Project Desc: CW Processing DW supply wells - Site Assessment

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 Cyanide, Total - Dissolved in Water					
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U
1 Cyanide, Total in Water					
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	6.2	10.8	2.9	1.0 U
Barium	ug/L	50.8	5.0 U	93.3	131
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	9.3	6.2	4.1	4.1
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	2.0 U	14.5	2.0 U	2.0 U
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Manganese	ug/L	30.7	1.0 U	35.4	27.0
Nickel	ug/L	9.7	1.0 U	11.1	2.2
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	34.8 U	25.4 U	13.4 U	2.6 U
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	4.5	9.0	4.0	1.0 U
Barium	ug/L	54.4	5.0 U	99.8	137
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.1	1.0 U
Copper	ug/L	4.0	6.2	2.3	3.3
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Manganese	ug/L	31.2	1.0 U	40.5	28.9
Nickel	ug/L	9.6	1.0 U	11.8	1.8
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	31.9	11.7	14.2	2.6

Number: 4997
Project ID: BMCWDWSA

RLAB Approved Sample Analysis Results

08/17/2010

Project Desc: CW Processing DW supply wells - Site Assessment

Analysis/ Analyte	Units	9-__	10-__	11-__
1 Cyanide, Total - Dissolved in Water				
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U
1 Cyanide, Total in Water				
Cyanide	mg/L	0.0100 U	0.0100 U	0.0100 U
1 Metals - Dissolved, in Water by ICP/MS				
Antimony	ug/L	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	1.0 U	1.0 U	1.0 U
Barium	ug/L	121	130	242
Beryllium	ug/L	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U
Chromium	ug/L	4.3	4.4	3.4
Cobalt	ug/L	1.0 U	1.0 U	1.0 U
Copper	ug/L	3.6	2.0 U	2.0 U
Lead	ug/L	1.0 U	1.0 U	1.0 U
Manganese	ug/L	24.1	14.4	294
Nickel	ug/L	1.9	1.9	2.4
Selenium	ug/L	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U
Zinc	ug/L	16.2 U	24.7 U	4.9 U
1 Metals in Water by ICP/MS				
Antimony	ug/L	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	1.0 U	1.0 U	1.0 U
Barium	ug/L	124	136	259
Beryllium	ug/L	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.0 U
Copper	ug/L	19.2	2.0 U	5.3
Lead	ug/L	1.0 U	1.0 U	2.4
Manganese	ug/L	26.9	16.1	322
Nickel	ug/L	1.7	1.9	3.1
Selenium	ug/L	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U
Zinc	ug/L	21.8	67.1	149

SUPP

~~Clt Samps. Rec'd.
lot 0-12
4/22/19~~